surgeries. **METHODS:** This one-year retrospective cohort study was conducted at a medical center in Taiwan from January 1st to December 31th in 2011. Adult patients (above 18 years) who had undergone total hip replacement or total knee replacement were identified by inpatient electronic database. Medical records were reviewed from the surgery day to at least three months post-operation for collecting demographic details and DVT-related clinical symptoms as the surrogate of effectiveness. Demographic and prescribing patterns of antithrombotics were assessed by descriptive statistic. Relative risk (RR) was calculated with 95% confidence interval (95%CI). **RESULTS:** Medical records of 212 patients (66.98% women) were reviewed. A total of 81 patients (38.21%) received rivaroxaban, 37 patients (17.45 %) received aspirin, 7 patients (3.30%) received warfarin, and 45 (21.22%) patients received no antithrombotics and antiplatlets. There was no stroke case in aspirin, warfarin, and aspirin/rivaroxaben combination group. Compared to other antithrombotics, rivaroxaben was associated with higher RR for stroke (RR 1.11, 95%CI 0.10-11.92), but lower RR for bleeding (RR 0.83, 95%CI 0.32-2.19). However, aspirin/rivaroxaben combination group showed an increase in bleeding events (RR 1.87, 95%CI 0.46-7.70). **CONCLUSIONS:** Treatment with aspirin or warfarin seems effectively reduce the risk of stroke. Aspirin/rivaroxaben combination may increase bleeding events. Further studies are needed to explore the effectiveness and safety of antithrombotics using a longitudinal data source with sufficient patients' characteristic data.

PCV7

A MIXED TREATMENT COMPARISON (MTC) TO COMPARE THE EFFICACY OF ANTI-THROMBOTIC AGENTS IN THE PREVENTION OF STROKE AND SYSTEMIC EMBOLISM (SE) IN PATIENTS WITH NON-VALVULAR ATRIAL FIBRILLATION (NVAF)

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This research was conducted during a review of the manufacturer's submission (MS) to the NICE Single Technology Appraisal programme for the oral direct factor Xa inhibitor, rivaroxaban. **OBJECTIVES:** New anti-thrombotic drugs are available for prevention of stroke in patients with NVAF but evidence on their clinical effectiveness compared with existing treatments is limited. This research compared the clinical effectiveness of rivaroxaban, dabigatran etexilate (dabigatran), aspirin and adjusted standard dose warfarin (warfarin) in people with NVAF. **METHODS:** Randomised controlled trials (RCTs) for inclusion were identified using the MS for rivaroxaban, and 2 similar reports for dabigatran; inclusion was validated using published systematic reviews. RCTs were assessed for comparability based on patient population, disease severity, and treatments received. A Bayesian MTC was conducted, and fixed and random effects models were explored. Consistency was assessed via pair-wise meta-analysis for each treatment versus warfarin. Odds ratio (OR) was chosen as the summary statistic. **RESULTS:** The network of 8 RCTs formed a "radiating star". The fixed effects model was the best-fitting model. There was reasonable agreement between the number of unconstrained data points, residual deviance and pair-wise results, suggesting a coherent network. Statistically significant results compared with warfarin were: reduction in ischaemic stroke with dabigatran (OR 0.78; 95% Credible Interval [95%CrI]: 0.60–1.00); reduction in SE with rivaroxaban (OR 0.24; 95%CrI: 0.07–0.54); reduction in minor extracranial bleeds with dabigatran (OR 0.88; 95%CrI: 0.82–0.96) and aspirin (OR 0.57; 95%CrI: 0.33–0.91); reduction in intracranial bleeds with dabigatran (OR 0.41; 95%CrI: 0.27–0.60) and rivaroxaban (OR 0.66; 95%CrI: 0.46–0.92); increase in myocardial infarction with dabigatran (OR 1.43; 95%CrI: 1.02–1.97); and increase in discontinuations with dabigatran (OR 1.36; 95%CrI: 1.24–1.48). **CONCLUSIONS:** This research suggests dabigatran and rivaroxaban may offer different clinical benefits and harms in patients with NVAF compared with warfarin.

PCV8

ASSESSMENT OF 30-DAY REHOSPITALIZATION FOR ACUTE MYOCARDIAL INFARCTION IN PATIENTS WITH ACUTE CORONARY SYNDROME WHO RECEIVED PERCUTANEOUS CORONARY INTERVENTION: A COMPARATIVE EFFECTIVENESS STUDY OF CLOPIDOGREL AND PRASUGREL

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OBJECTIVES: A 30-day rehospitalization rate for acute myocardial infarction (AMI) following hospital discharge among patients with acute coronary syndrome (ACS) who have received percutaneous coronary intervention (PCI) has been adopted as a hospital quality and performance measure. This study sought to compare 30- and 90-day AMI-related rehospitalization rates between ACS-PCI patients receiving clopidogrel versus those receiving prasugrel. **METHODS:** The study endpoint was pre-specified, and analysis was done under blinding. Using a large geographically diverse US database maintained by PREMIER, the study analyzed AMI-related rehospitalizations among ACS-PCI patients receiving either clopidogrel or prasugrel between July 2009 and June 2011. Analysis included patients treated with prasugrel who were on-label and clopidogrel-treated patients who would have been eligible for prasugrel treatment per the label. Treatment differences in rehospitalization rate at 30 and 90 days were analyzed. Unadjusted comparisons used chi-square tests. Multivariate logistic regression analyses adjusted for baseline patient differences using propensity score stratification. **RESULTS:** Data were available for 83,576 patients, of which 74,163 received clopidogrel and 9,403 received prasugrel. For clopidogrel and prasugrel, respectively, the observed AMI-related rehospitalization rates were 4.74% and 3.85% at 30 days (P=0.0001) and 6.27% and 5.13% at 90 days (P<0.0001). Prasugrel was associated with approximately 10% lower odds of AMI-related rehospitalization (Odds ratio=0.892 at 30 days [95% CI: 0.798-0.998]; Odds ratio=0.901 at 90 days [95% CI: 0.817-0.994]). **CONCLUSIONS:** Compared to clopidogrel-treated patients, prasugrel- treated patients experienced fewer rehospitalizations for AMI at 30 days and 90 days following ACS-PCI discharge. Similar results were obtained after adjusting for patient demographics and clinical characteristics. The potential for unmeasured confounder bias is a limitation in this real-world observational research.

PCV9

ASSOCIATION BETWEEN PERSISTENCE WITH STATINS AND REDUCTION OF LOW DENSITY LIPOPROTEIN CHOLESTEROL: ANALYSIS OF REAL-LIFE DATA FROM COMMUNITY SETTINGS

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OBJECTIVES: To quantify the association between persistence with statins and low density lipoprotein cholesterol (LDL-C) levels using "real-life" data in community settings. **METHODS:** A retrospective population-based cohort study was conducted among eligible 87,219 primary-prevention and 15,139 secondary-prevention patients who are members of a large health maintenance organization and initiated statins therapy between 1998 and 2008. Baseline and follow-up LDL levels were collected from three months prior to the date of first dispensed statins (index date) to six months afterwards. Persistence was assessed by proportion of follow-up days covered (PDC) with statins. **RESULTS:** Over the study follow-up period, there were significant (P< 0.001) reductions in LDL-C levels of 54, 33 and 13 mg/dl among highly persistent (PDC>=80%), poorly persistent (34%<=PDC<80%), and non-persistent statins users (PDC<=33%), respectively. In a multivariable model, high persistence with statins therapy was associated with a 27% and 25% decrement in LDL-C level among primary and secondary prevention cohorts, respectively. Similarly, a higher proportion of the persistent statins users reached target LDL-C level within the study follow-up period (80% and 58% among primary and secondary prevention cohorts, compared to only 28% and 17%, among non-persistent patients). **CONCLUSIONS:** In this observational population-based study, calculated PDC with statins during study follow-up was strongly associated with drug effect of LDL-C reduction. The results agree with previous estimates of statins efficacy from randomized clinical trials, supporting the validity of using PDC methods as a measure of drug exposure.

PCV10

COST-EFFECTIVENESS OF EXTENDED DURATION THROMBOPROPHYLAXIS AFTER SURGICAL DISCHARGE

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OBJECTIVES: Post-discharge thromboprophylaxis is the practice of prescribing antithrombotic therapy for 21 days after discharge, commonly used in surgical patients who are at high risk for venothromboembolism (VTE). While randomized controlled trials have demonstrated a risk reduction for VTE after major general surgery, the incidence rate where it is cost effective has not been established. Previous cost analyses have not included an effectiveness component, and have not reported a threshold VTE incidence rate to help answer for which procedures it should be implemented. This study sought to determine the VTE incidence threshold for the cost-effectiveness of low molecular weight heparin for 4 weeks after surgery as compared to inpatient prophylaxis only. **METHODS:** A cost-effectiveness decision tree was created using TreeAge. Assigned probabilities were derived from published literature. The decision point compared extended duration thromboprophylaxis with low molecular weight heparin for 21 days after discharge to inpatient-prophylaxis alone, with base case assumptions based on an abdominal oncologic resection without complications in a 45 year-old male. The end points were pulmonary embolism or deep vein thrombosis with attendant costs and assigned effectiveness evaluated by QALY. Willingness to pay was set at $50,000/QALY. Sensitivity analyses were performed to assess uncertainty within the model, with particular interest in the threshold for cost-effectiveness based on VTE incidence. **RESULTS:** Given base case assumptions with VTE probability of 4%, extended duration thromboprophylaxis had an incremental cost effectiveness ratio of $8123/QALY, which was considered cost-effective. The results were robust to sensitivity analysis with the highest uncertainty associated with VTE incidence and medication cost. The threshold for the relative cost-effectiveness was a VTE incidence exceeding 2.53%. **CONCLUSIONS:** Given the base case assumptions, extended prophylaxis is more cost effective than inpatient prophylaxis alone, and the threshold for its use should be cases where the estimated VTE risk exceeds 2.53%.

PCV11

INDIRECT TREATMENT COMPARISON (ITC) OF NOVEL ORAL ANTICOAGULANTS FOR THE PREVENTION OF THROMBOEMBOLIC EVENTS IN PATIENTS WITH ATRIAL FIBRILLATION

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OBJECTIVES: Atrial fibrillation (AF) is associated with an increased stroke risk. Anticoagulation with vitamin K antagonists (VKAs) such as warfarin has been the recommended prophylactic strategy for AF patients but suffers from shortcomings, including a need for regular monitoring. Novel oral anticoagulants (NOACs) were developed with the advantages of absence of monitoring and improved effectiveness and safety profiles. While clinical findings look promising, there are no direct comparisons between these newer agents. Through indirect treatment comparisons (ITC), this study assessed the comparative effectiveness of dabigatran (110mg and 150mg), rivaroxaban, apixaban, and warfarin in the prevention of thromboembolic events among warfarin-eligible AF patients. **METHODS:** ITC models were